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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/820,309	04/07/2004	Tapan Chandra	132527-1	7448
23413	7590	01/26/2007		
CANTOR COLBURN, LLP 55 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002			EXAMINER RONESI, VICKEY M	
			ART UNIT	PAPER NUMBER
			1714	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/26/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/820,309

Applicant(s)

CHANDRA ET AL.

Examiner

Vickey Ronesi

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                                         |                                                                                        |
|-----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                             | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                    | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/22/04, 1/30/06</u> | 6) <input type="checkbox"/> Other: ____                                                |

## DETAILED ACTION

### *Claim Objections*

1. Claim 13 is objected to because of the use of two “and”s in the Markush language regarding the adhesion promoter is improper. Note that only one “and” should be recited in Markush language.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 9, the term “the hindered amine stabilizers” in lines 2-3 lack antecedent basis.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 1714

3. Claims 1, 4, 11, 12, 14, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by van der Meer et al (US 5,869,572).

Van der Meer et al discloses a composition (col. 10, lines 10-48) which is injection molded (col. 8, line 22) comprising 5-94 wt % polyamide, 5-94 wt % polyphenylene ether, a compatibilizer, and an agent to improved impact resistance such as alkylene-alkyl(meth)acrylate copolymers with (meth)acrylic acid (col. 6, lines 39-41) or an alkylene-alkyl(meth)acrylate polymer with functional groups such as epoxy groups (col. 6, line 56).

In light of the above, it is clear that van der Meer et al anticipates the presently cited claims.

4. Claims 1, 4, 6, 7, 11, 12, 14, 15, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Abe et al (US 5,166,237, cited on IDS dated 7/22/2004).

Abe et al discloses a thermoplastic composition having improved paint adhesion strength and for use in molded products (abstract, col. 2, lines 35-47; col. 9, line 58 to col. 10, line 7) comprising 5-95 wt %, preferably 30-70 wt %, polyphenylene ether; 5-95 wt %, preferably 30-70 wt %, polyamide (e.g., nylon 6 and nylon 66, see examples); compatibilizer; 1-20 parts by weight based on 100 parts polyphenylene ether and polyamide adhesion improver such as methylmethacrylate/glycidylmethacrylate copolymer and styrene/methmethacrylate/glycidylmethacrylate terpolymer (col. 6, lines 19-20; col. 13, lines 9-15); and an impact strength improver (e.g., EPR, EPDM, and SBS, see examples).

In light of the above, it is clear that Abe et al anticipates the presently cited claims.

Art Unit: 1714

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 8 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abe et al (US 5,166,237).

The discussion with respect to Abe et al in paragraph 4 above is incorporated here by reference.

Given that Abe et al discloses the optional use of antioxidants (col. 9, line 56), it would have been obvious to one of ordinary skill in the art to utilize an antioxidant to decrease oxidation of composition during processing.

6. Claims 2, 3, 13, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abe et al (US 5,166,237) in view of Silvi et al (US 5,843,340, cited on IDS dated 7/22/2004).

The discussion with respect to Abe et al in paragraph 4 above is incorporated here by reference.

Abe et al teaches the use of inorganic fillers such as carbon black and the use of its composition in automotive molded articles, however, it fails to disclose the use of electrically conductive filler such as conductive carbon black.

Silvi et al discloses a conductive polyphenylene ether/polyamide composition and teaches that these blends are widely used in automotive molded articles because it is common to use

Art Unit: 1714

electrostatic powder coating for its convenience and environmental advantages, wherein electrostatic powder coating requires a relatively high surface electrical conductivity (col. 1, lines 6-30). Usually, the amount of carbon black is the amount necessary to afford a composition of the desired conductivity and is in the range of about 1-5.0 parts by weight per 100 parts by resin (col. 5, lines 1-8).

Given that the molded articles of Abe et al are used in automotive parts and further given that Silvi et al teaches that automotive parts are desirably coated by electrostatic coating, it would have been obvious to one of ordinary skill in the art to utilize a conductive filler in the composition of Abe et al in order for it to be coated by electrostatic coating.

7. Claims 5, 9, 10, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abe et al (US 5,166,237) in view of Bastiaens et al (US 6,353,050, cited on IDS dated 7/22/2004).

The discussion with respect to Abe et al in paragraph 4 above is incorporated here by reference.

Abe et al fails to disclose the use of a polyester ionomer, specific antioxidants, or a metal salt, however, note in col. 9, lines 52-57 where Abe et al teaches the use of suitable additives.

With respect to the polyester ionomer, Bastiaens et al discloses a thermoplastic composition comprising compatibilized polyarylene ether/polyamide and teaches that adding polyester ionomer results in a composition having reduced moisture absorption and improved paint adhesion (abstract). Given the advantages had by using a polyester ionomer as taught by

Art Unit: 1714

Bastiaens et al, it would have been obvious to one of ordinary skill in the art to utilize a polyester ionomer as an adhesion promoter in the composition of Abe et al.

With respect to specific antioxidants, Bastiaens et al teaches that suitable antioxidants in a composition comprising compatibilized polyarylene ether/polyamide includes those listed in col. 12, lines 38-56. Given the Abe et al discloses the desired use of antioxidants, it would have been obvious to one of ordinary skill in the art to utilize the suitable antioxidants taught by Bastiaens et al.

With respect to a metal salt, Bastiaens et al teaches that metal salts are used as stabilizers in a composition comprising compatibilized polyarylene ether/polyamide (col. 12, line 57 to col. 13, line 22). Therefore, in order to stabilize the composition of Abe et al, it would have been obvious to one of ordinary skill in the art to add a metal salt to the composition of Abe et al as taught by Bastiaens et al.

### *Conclusion*

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vickey Ronesi whose telephone number is (571) 272-2701. The examiner can normally be reached on Monday - Friday, 8:30 a.m. - 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

Art Unit: 1714

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

1/18/2007

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